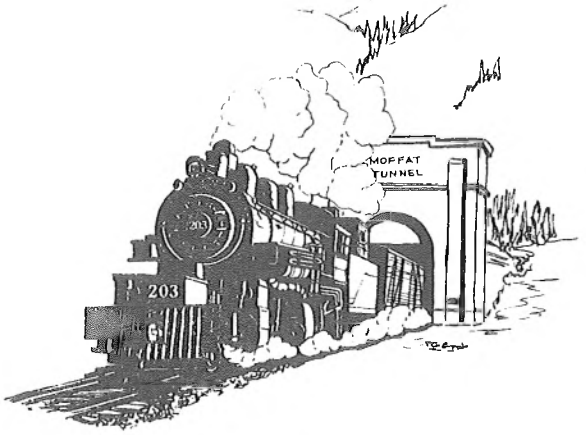
# Rocky Mountain Rail Report




## The Rocky Mountain Railroad Club

P. O. Box 2391 Denver, Colorado 80201
May, 1976 No. 200

CURRENT NEWS AND HISTORICAL NOTES OF ROCKY MOUNTAIN RAILROADING PUBLISHED MONTHLY FOR ITS MEMBERS BY THE ROCKY MOUNTAIN RAILROAD CLUB

Editor - - - Darrell T. Arndt

MEETING NOTICE: Date . . . . Tuesday, May 11, 1976
Time . . . . 7:45 P.M.
Place . . . Southeast wing of Christ Episcopal Church, 2900 So. University at Bates; offstreet parking at rear (east) of meeting hall.

PROGRAM NOTES:

A selection .... from the Otto Perry Collection

Almost 2,000 feet of 16mm Otto Perry films have been readied for viewing at the May meeting. Included in these black and white as well as color films will be scenes of the spectacular Rio Grande Southern Railroad, the Denver & Inter-Mountain, both standard gauge and narrow gauge D&RGW sequences, Manitou & Pikes Peak Cog Railway, the San Luis Valley Southern and the Union Pacific including locomotives in the 800 and 9000 classes and the "Big Boys." There will be shots east of the Mississippi including the Pennsylvania Railroad, the Norfolk & Western, the East Broad Top and others. As is always the case with the Otto Perry films this footage has never been shown in a program before. Bring a friend or neighbor if you wish and prepare yourself for some real fine entertainment.

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At the April meeting, an enjoyable, memory jogging look was given at a number of past Club excursions that took place in the mid and late 1960's. The evening's program of 16mm color movies presented by Ed Gerlits and complemented with background music arranged by Kurt Penny and Richard Sheets, first covered a two-day, multiple engine steam operation on the Cripple Creek & Victor 2-foot gauge railroad in Cripple Creek. For a single ticket, an individual could ride as often and on any of the trains that were operated. The various runs with all sorts of engine and car combinations were shown from different vantage points along the line, from the train itself and from the locomotives. It was easy to see that much enjoyment was experienced by those who partook in the activities of the little short line and the fun that we can look forward to next month, when the Rocky Mountain Railroad Club will again sponsor a similar weekend in Cripple Creek.

The second half of the program comprised footage of the memorable steam excursions north and west of Denver in the mid-sixties behind ex-Great Western steam locomotive No. 51. Perhaps the most interesting of these trips sponsored

by the Club, were these over the Rio Grande Railroad as far as the Moffat Tunnel. Included were views of the train working upgrade near the Rocky Flats area, through the tunnels on the front range, Boulder Canyon, and many other locations before reaching and turning around at the East Portal. Many thanks to Ed, Kurt, and Richard for the swell presentation.

PRIOR TO THE START OF THE PROGRAM, the book drawing was held for the books "Denver South Park & Pacific" by Mac Poor, and "The Rio Grande Southern Story" by Jose Moore Crum. James Ranniger's son, Bruce had the honor of drawing out the coupons. Winner of "The Rio Grande Southern Story" was Phillip E. Marceau of Port Orchard, Washington, while William T. Wengler of Golden, Colorado won and was presented at the meeting with "Denver South Park & Pacific." Congratulations to these two members who will, undoubtedly, enjoy these books for a long time to come. Many thanks to everyone who participated in this drawing by purchasing chances. The response was most gratifying. A great deal of appreciation, of course, is extended to Thomas Streeter of Allamuchy, New Jersey, who donated the two publications to the Club in memory of his late uncle, Charles W. Cheney. A page was added to both books stating that the books were donated in his memory.

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OVERCAST SKIES, brisk winds, and a wet snow kept attendance down but not the enthusiasm of those who braved the inclement weather on Saturday, April 17, to see the Uhrich Locomotive Company's latest engine steamed up at their shop in Strasburg, Colorado. It was learned just before the April meeting that the 15-inch gauge, coal-fired scale model D&RGW K-27 (2-8-2) would soon be shipped to its buyer in Arizona and the Uhrichs graciously agreed to have the engine operating the Saturday after the last meeting. As luck would have it, a major storm system moved into the area Saturday morning and made travel hazardous west of Denver, and somewhat unpleasant to the east. The precipitation was welcomed by ranchers and farmers, however, as the plains have been in great need of moisture. The engine was, nevertheless, fired up and run on the outside test track. In a word, the engine was BEAUTIFUL to say the least. The new owner is certainly gaining a gem. Visitors were welcome to tour the shops and office areas and see other projects underway, as well as a variety of heavy tools in use. The Uhrichs, not newcomers to this type of work, have built some 18 locomotives since 1948, the first being for the Tiny Town railroad. Our thanks to Virgil and Marlin Uhrich and their personnel for steaming up the engine and putting out the welcome mat.

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FULL HOUSE TO LARAMIE - The May 30th 8444 excursion to Laramie is now sold out. The weekend appears to have much going for it in the way of railfan acitivities in addition to the 8444. The Colorado Railroad museum has tentative plans to fire up Engine 346 for the Memorial Day weekend and also have the Galloping Goose running. The Denver HO Club will have their layout in the basement of the museum operating and open to the public on Friday evening, May 28th, and possibly on May 30th. The HO Club's "open house" will be in conjunction with the Spring '76 Convention of the Rocky Mountain Region of the NMRA, which is to be held May 28 and 29 at the Ramada Inn, Wheatridge, Colorado (I-70 at Kipling). Included in the itinerary are tours of private and club layouts, displays, clinics, movies, an auction, model building and photo contests and a banquet. Registration fee is $11:00 or at the door, a dollar more. Tickets and further information on this model railroader's delight can be obtained by writing to: APRING '76 Convention - RMR, 1040 S. Decatur St., Denver, Colo. 80219

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ON SUNDAY, AUGUST 1ST, the Intermountain Chapter of the NRHS has made arrangements for an 8444 trip to Laramie also. Fare is $33.00, which includes lunch in Laramie. Tickets and brochure can be obtained from the Chapter by writing to them at P. O. Box 5181, Terminal Annex, Denver, Colorado 80217.

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COMING EVENTS - A number of Club activities are being planned for the summer and fall. Details will be announced as they are finalized, but for the moment here is a brief summary: Starting out the summer is the 8444 trip on May 30, of course. -- In July, there will be a Rocky Mountain Railroad Club day at the Colorado Railroad museum, with Engine 346 steamed up and other activities planned. -- On August 14, a walking tour of parts of the old Colorado Midland will take place during a get-together near Hagerman Pass west of Leadville. -- On September 11, special double-headed steam trips for the Club will be run on the Georgetown Loop Railroad. -- Also in September, on the 26th, Ralph McAllister will fire up his miniature steam locomotives in Boulder for a day's operation. -- The Pikes Peak Cog Railway will provide a special train for the Club in early October, using their new two-car trains. There may be additions or minor changes to these plans, of course, so watch for information in coming newsletters.(See flyer for June 12 and 13 activities.)

PROGRESS REPORT ON THE REPUBLICATION OF DENVER SOUTH PARK & PACIFIC -- Printing of the last few pages of the 1976 edition of Mac Poor's "Denver South Park & Pacific" (the reprint of the original 1949 edition) is taking place as this newsletter is being printed. The printed sheets have been folded and collated as they come off the press and the gathered pages should be ready to be sent to the bindery in June. With a couple of months for binding and another for inspection, packaging, and shipping, the first of the books should begin reaching their destinations in late September or early October, providing unexpected problems do not arise to delay production. Do not delay mailing in your order for the book if you wish to take advantage of the pre-publication bargain price of $19.00. When the first books are received from the bindery, the price will be raised to $24.00. For quality and content, this book will be far superior to many of the $30.00 to $35.00 railroad books on the market today.

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THE SARGENTS DEPOT was recently moved to the museum at Gunnison.

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THE NEW TWO-UNIT SWISS TRAIN recently received by the Manitou & Pikes Peak Ry. has been repaired and made test runs to the top of the mountain.

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A RATHER INTERESTING and unusual article recently appeared in an issue of the Colorado Municipal League's publication "Colorado Municipalities" that explores a not often reviewed aspect of narrow gauge railroad operations. That is, the supplying of the locomotives and trains in rural and remote areas with an acceptable and reliable source of water. With permission from the publisher, we have reprinted in full, a rather enlightening essay about a system that is still partially in use that was written by T. Lindsay Baker, a research associate in the History of Engineering Program at Texas Tech University.

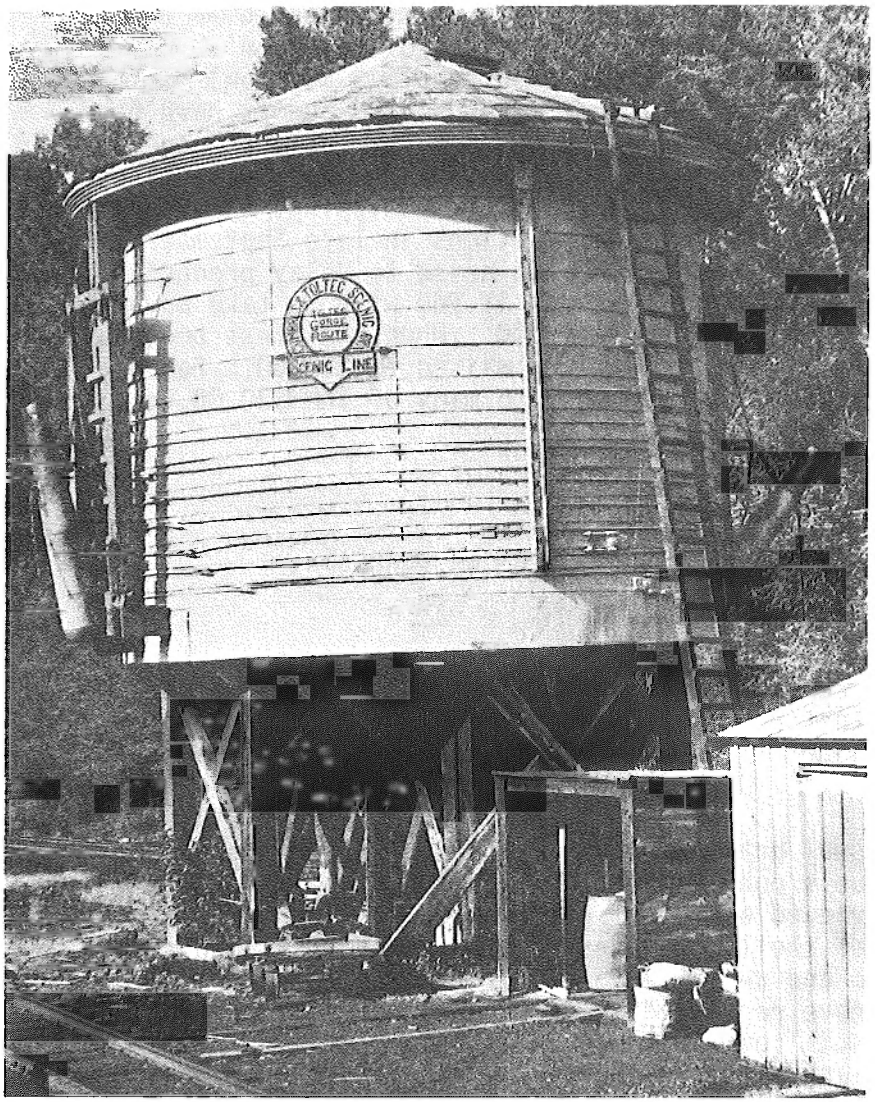
# Historic Colorado

## Railroad water systems

By T. Lindsay Baker
Texas Tech University

The Cumbres and Toltec Scenic Railroad water systems are among the last functioning nineteenth century steam railroad water supply stops in the United States. The systems were built when the railway line was constructed from Antonito, Colorado, to Chama, New Mexico, by the Denver and Rio Grande Western Railroad in 1879-81. Consisting of nine individual water stops between and including those at Antonito and Chama, the stops represent a rare operating case study.

The narrow gauge railway line from Antonito to Chama was an integral part of the network of steam railroads constructed in Colorado and New Mexico in the late nineteenth century by General William Jackson Palmer. His track construction started south from Denver in 1871. At Walsenberg it turned west to cross the San Luis Valley to Alamosa. From Alamosa one route, known locally as the "Chili Line," ran south to Santa Fe, New Mexico. The other line continued westward to reach Antonito in 1879. Two years more of construction over a tortuous route saw the tracks reach Chama, New Mexico.




**One of the last functional double spout water tanks in the United States stands ready for service in the Chama, NM railway yards. This 1897 tank supplies water to the Cumbres and Toltec Scenic Railroad.**

The rough terrain over which the track passed forced construction costs of this section as high as $140,000 per mile, an incredibly large sum in the nineteenth century. From Cumbres Pass to Chama the four percent grade is said to be the steepest sustained railroad grade in the United States.

In 1969 the states of Colorado and New Mexico purchased the 64-mile railway line and equipment between Antonito and Chama from the Denver and Rio Grande Railway in order to insure its preservation. With its name changed to Cumbres and Toltec Scenic Railroad, the railway again carries passengers—to their delight—through the high passes and the Toltec Gorge between Antonito and Chama.

The nine separate systems which for almost a century supplied water to the steam locomotives traveling over the Cumbres and Toltec Scenic Railroad represent one of the last *functioning* steam railroad water systems in the United States.

At each of the nine water stops along the Antonito-Chama line, there stood a standard wooden water tank of the Denver and Rio Grande Western Railroad. These wooden tanks, which rested on heavy wooden frames, were 22 feet in diameter and 15 feet tall and held approximately 40,000 gallons. Slightly curved redwood staves, each 2-5/8 inches thick, formed the sides of the tanks and were held together in a barrel-like fashion by malleable steel bands about 4-1/2 inches wide. Such bands were used until the turn of the century, when it was discovered that they rusted from the inside. Steel rods then were used in place of the bands.

Railway crews continue to use a system of counterweights, ropes, and chains to lower and raise the spouts on the tanks and to control the flow of water through them. The valve which controls the flow of water through the spout to the locomotive is located inside each tank and is controlled by way of a rope on wooden pulleys on the outside of the tank.

The water level in the tanks is indicated by the position of a cast iron block on a numerical grid painted on the outside of the tank. The iron block is fastened by a rope over wooden pulleys to a wooden float inside the tank. Changing levels of the float automatically register the water level changes

on the painted grid. When the tank is empty, for example, the iron block stands at the top of the tank, and when it is full, it stands at the bottom.

On the southwestward route from Antonito, the first water stop was at the Antonito station. This stop, now outside the Cumbres and Toltec system, still stands near the stone Denver and Rio Grande Western depot in Antonito. The first water tank there, which received its supply from the nearby San Antonio Creek, was built in 1883. In 1902 additional water supply was provided by a well drilled near the tank and pumped there by a No. 11 pump powered by a stationary locomotive boiler. The original 1883 water tank received a new wooden frame in 1897, but by 1912 the entire structure had deteriorated to such an extent that it had to be replaced. This water tank continued in use until about 1968, and was the last water tank on the Denver and Rio Grande Western system to water narrow gauge and standard gauge locomotives.

Soon after its construction to that point, the Denver and Rio Grande Western Railroad began watering its locomotives at Lava, New Mexico, with water taken from Los Pinos Creek, 2,100 feet from the main track. Two steam pumps lifted the water to the tank via a 2,200-foot 3-inch cast iron pipe. In 1905 the stop used an average of 12,000 gallons of water daily. The original tank, erected before 1883, received a new wooden frame in 1896 and functioned until 1918, at which time it was replaced.

The next water stop on the line from Antonito to Chama, at Sublette, New Mexico, began watering trains about 1880 from an "unnamed gulch." In 1939 the railway installed an underground concrete reservoir at Sublette, and the old tower and tank were removed. When this work was done railway employees discovered that the tank was made of pine instead of the usual redwood.

Before 1883 the railroad used water from another "unnamed gulch" 420 feet from the main line at Toltec, New Mexico. The tank at Toltec, which like most of the others was erected before 1883, received a new frame in 1894. By the early 1920's the use of the Toltec water stop was restricted to supplying section crews and watering rotary snow plows or trains "bucking snow" during the winter.

The Osier, Colorado, water stop is one of the most interesting on the entire line from Antonito to Chama. At Osier the railroad began using water from a stream belonging to William Jenkins. Railroad officials made an oral agreement with Jenkins to furnish his house with a hydrant and to give him occasional trip passes in return for use of water and for a right-of-way for a water pipeline. Jenkins later understood this agreement to include a free supply of coal for his house, as indicated by a report in 1905, which stated that since 1897 Jenkins had used company coal at the rate of one ton per month.

Before 1883 the company erected a standard wooden water tank at Osier. In 1897 they replaced its wooden frame, but in 1921 had to erect a new redwood water tank which remains in service. Water came to the tank in a gravity pipeline from the stream on Jenkins' property. In 1891 the original pipeline was replaced, and in 1917 the second line was replaced with one made of 3000 feet of 2-inch boiler flues. This boiler-flue line remains in service.

Even with all the money and time expended to get water from Jenkins' stream, the supply at Osier was not always dependable. Virtually every winter the supply froze, and railway crews had to chop ice from the stream and melt it for boiler supply

At Los Pinos, Colorado, located in a beautiful Alpine valley and accessible to tourists on Colorado Highway 17, stands another of the typical wooden water tanks on the Cumbres and Toltec system. The railway began using water here before 1883, and in 1884 it constructed a 1,000-foot wrought iron gravity pipeline to the tank from an unnamed spring. That year a standard water tank with a 6-inch flow pipe was erected at the site. Described in 1905 as not in very good condition, this tank was rebuilt on its old foundation from second-hand materials in 1930 or 1931. The rebuilt tank, considerably smaller than the original structure, holds 18,000 gallons of water and is still used by the railway.

Water at Cumbres Pass, Colorado, came to the railroad from a shallow lake located near the stop and adjacent section house. This water was pumped to the siding by a 16-foot Decorah Steel Windmill erected on a 30-foot tower. In 1918 the source of supply was changed to a spring located above the Cumbres stop and carried there in a gravity pipeline made from 6,000 feet of 2-inch boiler flues. In 1937 this gravity line was replaced by 6,000 feet of galvanized pipe. The wooden water tank was replaced in 1940 with a concrete underground reservoir tapped with a water spout which remains the water supply equipment at Cumbres Pass.

The water tank at Cresco, Colorado, is one of the most attractive and historic water stops on the entire Cumbres and Toltec system. Surrounded by aspen trees, the original 1893 water tower, the oldest on the system, remains in use. Water comes to Cresco Tank via a gravity line from a shallow lake covering 16 acres located 3 miles from the main track. After the tank began to show its age, its capacity was reduced to 18,000 gallons because of its weakened condition.

At Chama, New Mexico, the southwestern terminus of the Cumbres and Toltec Scenic Railroad, stands one of the best preserved water systems on the entire railway. Water comes to a pump well in the Chama Yards through a vitrified tile pipeline from the Chama River. Within the roundhouse two stationary locomotive boilers originally powered a No. 9 Cameron pump which lifted water from the adjacent pump well through a 780-foot 3-inch cast iron pipeline to a large double-spout wooden water tank erected in 1897. This original tank, still in use, is one of the last double-spout tanks in the United States. It was so designed in order to water two locomotives at the same time, frequently a necessity in a railway yard. At the turn of the century, an average of 50,000 gallons passed through the tank daily. The original steam and pumping equipment remains intact at Chama, but today an electric centrifugal pump lifts water from the pump well to the tank.

The water systems of the Cumbres and Toltec Scenic Railroad constitute a rare and fragile example of the types of railway water systems used throughout the United States a century ago. They will be preserved, hopefully, as significant monuments in the history of American engineering.

FRANK ROPINSKE - Frank Ropinske, a huge man with a jovial smile and a hearty laugh, and always lugging along a shopping bag full of goodies, has made his last trip with the Rocky Mountain Railroad Club. Frank died on March 1, 1976, at age 80 in Chicago, while on a visit from his home in Escondido, California. He had retired from the Post Office in his native Chicago in the 1950's, and seldom missed any of the Club's major excursions, being one of our most faithful out-of-state supporters. He was a long-time member of the Club, and a frequent visitor to Colorado, owning for many hears, the old Henry Toll ranchouse within sight of the station at Tolland. Frank will certainly be missed by his hundreds of railfan friends throughout the country.

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A COINCIDENCE !?!?! As the country is preparing to celebrate its "200th," so also, it seems, is the Rocky Mountain Rail Report with issue number 200.

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SWAP 'N SHOP - Personal ads are accepted from members to be listed for sale or trade or wanted. We cannot enter into any correspondence, nor will we appraise items:

FOR SALE: 16 by 20 high quality color photograph of UP8444 on line from LaSalle to Julesburg, in 1967. Mounted under non-reflective glass. Call 424-6910 after 5 PM.
RANDALL DEAN, 9385 W. 53rd Place, Arvada, Colorado 80002

WANTED: Action and atmosphere photographs of Monon Railroad, any period, as illustrations for forthcoming book. Traditional wedge speed shots preferred.
GEORGE W. HILTON, Dept. of Economics, UCLA, Los Angeles, Calif. 90024

WOULD LIKE TO BUY OR SWAP annual passes of the M & PP for 1891-94, 1898-1903, 1905, 1907, 1918. Have duplicates 1912, 1913, 1915, 1916, 1935-1936; also some CM, C&S, C&W and Kansas Pacific.
MORRIS W. ABBOTT, 33 Driftwood Lane, Milford, Connecticut 06460.

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